

- 1        1. A workpiece holder for use in processing a workpiece comprising:
- 2              a workpiece support;
- 3              at least one finger assembly mounted upon said workpiece support; said at least one finger
- 4              assembly including at least one contact for contacting the workpiece;
- 5              at least one finger actuator operable with said at least one finger assembly for moving said
- 6              finger assembly between an engaged position wherein said finger assembly is in contact with the
- 7              workpiece and a disengaged position wherein said finger assembly is disengaged from the
- 8              workpiece, said at least one finger actuator having means for moving the at least one finger
- 9              assembly in an axial movement toward and from the workpiece along a longitudinal axis, and
- 10              means to rotate the at least one finger assembly in a rotational movement about said longitudinal
- 11              axis;
- 12              at least one electrode forming a part of said at least one finger assembly, said at least one
- 13              electrode having an electrode contact for contacting a surface of said workpiece to provide
- 14              electrical connection therewith, wherein said electrode contact is one of said at least one contact.
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- 16        2. The workpiece holder of claim 1 wherein said at least one finger actuator moves
- 17              said at least one finger assembly in a reciprocal manner.
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- 19        3. The workpiece holder of claim 1 and further comprising at least one protective
- 20              sheath covering at least a portion of the at least one finger assembly to protect the finger assembly
- 21              from contact with a fluid.

1           4. The workpiece holder of claim 1 and further comprising at least one protective  
2         sheath covering at least a portion of the at least one finger assembly to protect the finger assembly  
3         from contact with a plating fluid, said at least one protective sheath being made from a dielectric  
4         material.

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6           5. The workpiece holder of claim 4 wherein said at least one protective sheath  
7         includes a rim portion for engaging said workpiece and forming a seal therebetween.

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9           6. The workpiece holder of claim 4 wherein said electrode contact is maintained in a  
10         generally retracted position within said at least one protective sheath when said at least one finger  
11         assembly is in said disengaged position; said electrode contact being moved out of said retracted  
12         position when said at least one finger assembly is moved into said engaged position.

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14           7. The workpiece holder of claim 4 wherein said at least one protective sheath  
15         includes a yieldable terminal end adjacent said electrode contact for engaging said workpiece and  
16         effectively sealing said electrode contact therewithin when said at least one finger assembly is  
17         moved to said engaged position; wherein said electrode contact is maintained in a generally  
18         retracted position within said at least one protective sheath when said at least one finger assembly  
19         is in said disengaged position; said electrode contact being moved out of said retracted position  
20         when said finger assembly is moved into said engaged position.